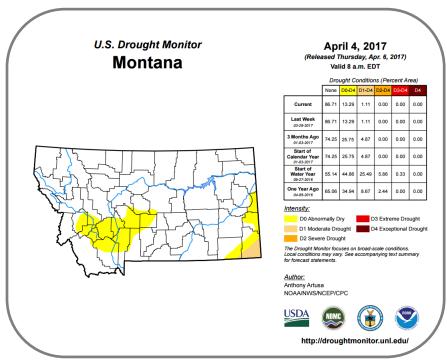
# Montana — Current Drought Conditions



The U.S. Drought Monitor, is a weekly map of drought conditions produced jointly by the National Oceanic and Atmospheric Administration, the U.S. Department of Agriculture, and the National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln. The U.S. Drought Monitor website is hosted and maintained by the NDMC. http://droughtmonitor.unl.edu

# **Highlights for the State**

March came in like a lion and left like a lamb, as the saying goes. The first two weeks of the month brought snowpack increases to all basins across the state. The second half of the month saw all valley snows melt with increased temperatures and decreased precipitation. Snowmelt occurred below 7000' east of the Continental Divide and 6000' west of the Divide. By April 1st, most basins in Montana had near to slightly above normal snowpack for the rivers and sub-basins west of the Divide. Exceptions east of the Divide include the Gallatin (87%) and the Smith-Judith-Musselshell combined basin (70%). Read more in the NRCS Montana Water Supply Outlook Report as of April 1st, 2017.

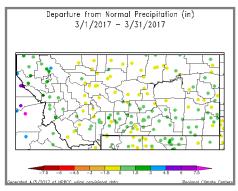
**P**recipitation was especially abundant along the northwestern part of the state, from Lincoln to Liberty counties. Rain and melting snow did prompt some flood concerns mid-month in northern Idaho and west of Bozeman (<u>read more here</u>), but did not otherwise impact snow supplies.

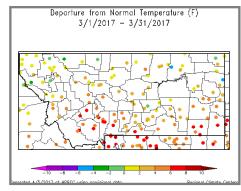
Temperatures for March went from cool to warm by mid-month. Southwest Montana saw temperature increases 2 to 3.5° F above normal. However, for the Water Year (October—September) temperatures have been average across the state.

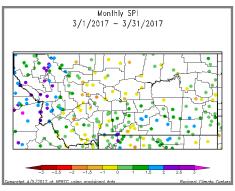
The US Drought Monitor continues to show dry conditions in Carter County and this week they have spread into southeast Power River and north to Fallon and Wibaux. Southwest to southcentral Montana also shows signs of slightly dry conditions.

# Montana — Climate Overview for Last 60 Days

# **Temperature and Precipitation Anomalies**







PERIOD	AVG TEMP	20 <sup>TH</sup> CENTURY AVERAGE	DEPARTURE	RANK	WARMEST/COOLEST SINCE	RECORD
Mar 2017 1-month period	46.15°F (7.86°C)	41.50°F (5.28°C)	4.65°F (2.58°C)	115 <sup>th</sup> Coolest	Coolest since: 2015	1965
				9 <sup>th</sup> Warmest	Warmest since: 2016	2012

**M**arch precipitation was normal to slightly below normal for the entire state. March 2017 was 13th wettest and 111th driest in 122 years.

Temperatures over the 30-day period were warmer than normal across the state. March was the 115th coolest and the 9th warmest.





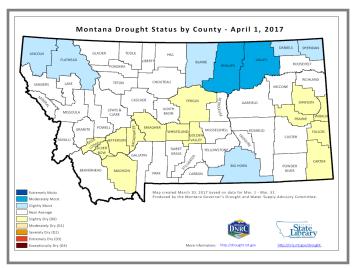


# Montana — Drought Indicators

## **Montana Drought Status by County**

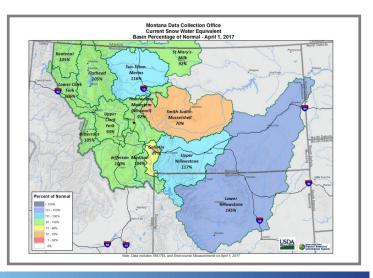
The Montana Drought Status by County is a monthly assessment tool used to monitor the moisture at a county level for the state. Temperature, precipitation, snowpack, reservoirs status, surface water gages, groundwater, crop reports, and field reports are compiled to create this map. To see a historical record go here: https://mslservices.mt.gov/Geographic Information/Maps/drought/

**D**o you have impacts to report? We need your on-the-ground reports and you can send them to amontague@mt.gov



### **Water Resources**

The map below shows the current Snow Water Equivalent (SWE), which gives an indication of how much water is stored in the snowpack in comparison to normal. The Sun-Judith-Muselshell and Gallatin basins are below normal for this time of year. All reservoirs are currently at or above average. The Bureau of Reclamation is currently monitoring Yellowtail Dam due to above average (145% of normal SWE) in the Lower Yellowstone basin. Additional spring rains are hoped to keep river flows at near average for April-July.



# Montana — Short- and Long-term Outlooks

# **Weather and Drought Outlooks**

For the next month there are equal chances of above, normal, or below average temperatures for the entire state. There is a 40% chance of above average precipitation for

the majority of the state, with the area west of the divide looking at a 33% chance of elevated precipitation.

Looking further out, the May-Jun-Jul period continues to hold equal chance of above, normal or below average temperatures for the state. There continues to be a 40% chance of above average precipitation for the majority of the state, with the area west of the divide looking at a 33% chance of elevated precipitation.

Although there is less certainty when looking at predictions beyond the next three months, the same pattern is expected to remain for the majority of the state.

**D**rought conditions are expected to improve, but should remain closely monitored in 2017 to ensure the lingering effects of the last two years do not persist. Read the National Drought Mitigation Center's Drought and Climate for February 2017 Report to learn more.

# ÉС

### Need a Forecast?

Visit your local National Weather Service Weather Forecast Office for the most up-to-date forecast at: http://www.weather.gov

### Stay Tuned and In Touch

The next Montana Drought Impacts and Outlook Summary will be released around April 9th. If you need information in the meantime, please reach out to any of the partners listed to the right or contact Ada Montague directly at amontague@mt.gov.

# **Heard Around the State**

Our neighbors to the south in Wyoming have benefitted greatly from winter snows and are seeing some of their mountain snowpack set new records. This will mean a high probability of springtime flooding for Montana, especially along the Big Horn and Yellowstone Rivers.

Ice jams are a frequent winter hazard in Montana. For general information on ice jams, check out this info from NOAA: http://www.wrh.noaa.gov/tfx/

### **Partners**

Montana State Climate Office

www.climate.umt.edu

**National Weather Service** 

**Great Falls Weather Forecast Office** 

www.wrh.noaa.gov/tfx/

Missoula Weather Forecast Office

www.wrh.noaa.gov/mso/

**Billings Weather Forecast Office** 

www.wrh.noaa.gov/byz/

**Natural Resource Conservation Service, Snow Survey** and Water Supply Forecasting

www.nrcs.usda.gov/wps/portal/nrcs/main/mt/snow/

Montana Bureau of Mines and Geology

data.mbmg.mtech.edu/mapper/

Montana State Library

mslservices.mt.gov

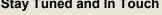
**United States Geologic Survey** 

http://wy-mt.water.usgs.gov/

Bureau of Reclamation, AGRImet www.usbr.gov/pn/agrimet/h2ouse.html

**National Agricultural Statistics Service** 

www.nass.usda.gov/Statistics by State/Montana/



Read the NOAA National Drought Overview at:

https://www.ncdc.noaa.gov/sotc/drought/201611#detailed-discussion





